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| APPLICATION NO.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 10/619,517            | 07/16/2003  | Katsumi Harumoto     | 116581              | 7522             |
| 25944                 | 7590        | 05/03/2005           |                     |                  |
| OLIFF & BERRIDGE, PLC |             |                      | EXAMINER            |                  |
| P.O. BOX 19928        |             |                      | LEE, SUSAN SHUK YIN |                  |
| ALEXANDRIA, VA 22320  |             |                      | ART UNIT            | PAPER NUMBER     |
|                       |             |                      | 2852                |                  |

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                          |                     |  |
|------------------------------|--------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b>   | <b>Applicant(s)</b> |  |
|                              | 10/619,517               | HARUMOTO            |  |
|                              | Examiner<br>Susan S. Lee | Art Unit<br>2852    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 07 February 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-34 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1-16, 33 and 34 is/are allowed.  
 6) Claim(s) 17, 18, 23, 24, 26-29 and 31 is/are rejected.  
 7) Claim(s) 19-22, 25, 30 and 32 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

Upon reconsideration of the claims, the previous allowance of claims 23 and 31 is hereby withdrawn in view of the newly founded references to Mii (5,282,127).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 18, 23, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mii (5,282,127) in view of Gilliland et al. (4,961,088).

Mii discloses a centralized control system for terminal devices requiring field service such as copying machines. A copying machine 1 have an I/F circuit 2 that supplies data necessary for controlling the copying machine 1 to the center device 4, that reads on the instant invention's management server, through a communication unit 3 that reads on the instant invention's control unit. Data collected by the I/F circuit 2 includes a number of copying sheets of each size voltages of main portions such as exposure voltage, development bias voltage, temperatures of the main portions such as a temperature of a heat roller, trouble information such as paper jam at each position, using-up of toner (developer), using-up of paper and abnormal voltages, and information on the power supply on/off, states of the copying machine. Of these data the number of copies of each paper size and voltages an temperatures of the main portions are measured every time the copying machine 1 operates and temporarily

stored in the buffer unit 10 and transferred to the communication unit 3 through the data input/output unit 11 response to request of the communication unit 3, and the trouble information and copying machine information can be always monitored by the communication unit 3. Note column 5, line 20 – column 6, line 36. The center device 4 is connected with the communication unit 3 through a communication line 6 for a private line including a public telephone line, leased line of LAN (Local Area Network) and receives data transmitted from the copying machine 1 through the communication unit 3 and executes application software which controls the copying machine 1 and performs data input/output from/to the communication unit 3. Note column 4, lines 30-58. The buffer unit 10 reads on the instant invention's storage medium which stores information.

Mii differs from the instant invention by not disclosing at least one replacement part including a storage medium; and the replacement part is detachably mountable.

Gilliland et al. discloses at least one replaceable cartridge to be used in an electrostatographic reproducing machine. The cartridge has an EEPROM chip 90 that reads on the instant invention's storage medium of the replacement part. The EEPROM is programmed with a cartridge identification number that when matched with a cartridge identification number in the machine enables machine operation, a cartridge replacement warning count, and a termination count at which the cartridge is disabled from further use, EEPROM storing updated counts of the remaining number of images left on the cartridge after each print run. The EEPROM 90 can be enabled to be electrically connected and disconnected with the machine on installation or removal cartridges, contact pads 92A and 92B are provided. Terminal blocks 94 and terminal

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board 97 are employed to complete the electrical connection between EEPROMs 90 and the machine control unit. On installation of the developer cartridge 14 into machine 10, contacts 92B for both the EEPROM 90 of toner cartridge 16 and the EEPROM 90 of developer cartridge 14 mate to a second set of contacts mounted on the machine frame 18 (not shown) to complete the electrical connection. The second set of contacts read on the instant invention's communication unit in claim 18. Note abstract and column 5, line 50 – column 6, line 26.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mii with that of Gilliland et al. so that when a cartridge of an image forming apparatus is nearly used up, a user can be notified to replace it, thus prolonging the use of the image forming apparatus.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mii, as modified by Gilliland et al., as applied to claims 17, 18, 23, and 31 above, and further in view of Yano et al. (2003/0044184).

Mii, as modified by Gilliland et al., differ from the instant invention by not disclosing inherent information corresponding to identification information of the replacement part which can be inputted from a personal computer connected to the image forming apparatus through the network.

Yano et al. discloses a system which a user or a service person can change an electrophotographic setting in the electrophotographic engine through an operation panel of the printer or a driver screen of a host computer, or from a computer in a service center through a communication means such as a telephone line or the Internet.

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To prevent the system from being unbalanced due to changing of one electrophotographic parameter, which leads to a new problem, a data set in which a certain number of related electrophotographic parameters are combined may be prepared to enable the parameters to be changed in association with each other. Electrophotographic parameters to be output may be selected from various sorts of information useful in analysis of engine conditions, i.e., electrifying conditions, exposure conditions, development conditions including developing bias, transfer conditions, absorbing conditions, fixing conditions including a fixing temperature, information on physical properties of electrophotographic parts, information on temperatures in the machine, image density information, etc. Note page 2, paragraphs [0034]-[0035]; and page 3, paragraph [0049].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mii in view of Gilliland et al. with that of Yano et al. so that unnecessary parts replacement and reducing service cost can be obtained as discussed by Yano et al. (page 6, paragraph [0108]).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mii, as modified by Gilliland et al., as applied to claims 17, 18, 23, and 31 above, and further in view of Wood et al. (2001/0055492).

Mii, as modified by Gilliland et al., differ from the instant invention by not disclosing a control unit that controls latest software for operating the image forming apparatus to be installed through the network.

Wood et al. discloses a networked copier having a marking engine for printing copies of information; a user interface supervisor for controlling interface between users and the marking engine; and a network web server that downloads software to a computer at a remote location to which a remote user has access to provide user interface software for establishing a user operational interface for communication requirements for a print job to the user interface supervisor for printing by the marking engine. Note abstract. Upgrading the software is also allowed. Note page 1, paragraph [0007].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mii in view of Gilliland et al. with that of Wood et al. so that loading software onto every computer system that is remotely connected to the copier can be prevented.

Claims 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mii, as modified by Gilliland et al., as applied to claims 17, 18, 23, and 31 above, and further in view of Nagata (6,798,995).

Mii, as modified by Gilliland et al., differ from the instant invention by not disclosing a control unit that, in case where trouble occurs in the image forming apparatus, controls information thereof to be transmitted to a manufacturer through the network; and a control unit that controls diagnostics to be run on the image forming apparatus having trouble through the network.

Nagata discloses machine managing system with a storage unit for registering unique information on a machine of a contract signer; a communications unit for detecting information on a remaining amount of a consumable article in the machine via telephone lines as a network; and a processing unit for making an instruction to dispatch a new machine to the contract signer if the remaining amount of the consumable article has reached a specified value. Note abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mii in view of Gilliland et al. with that of Nagata so that consumable articles are managed, replaced, and collected without requiring any work done by users as disclosed by Nagata (note abstract).

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mii, as modified by Gilliland et al., as applied to claims 17, 18, 23, and 31 above, and further in view of  
  
Takahashi (2002/0051186).

Mii, as modified by Gilliland et al., differ from the instant invention by not disclosing a control unit that controls diagnostics to be run on the image forming apparatus having trouble through the network.

Takahashi discloses a network system 100 where a user can easily cope with various problems of a printer. A user transmits information that is a quantified version of a sensory problem, which a user sees as a problem when the user uses a printer, to the maintenance service side. The maintenance service side returns information for coping

with the problem, which is based on the quantified information transmitted from the user side, to the user side. The user performs operations and processing based on the information for coping with the problem received from the maintenance service side, and solves the problem of the device. Note abstract. The network system 100 has the user sides 120 (1), 120(2), ... and a printer management server 130 for managing printers provided in the user sides 120(1), 120(2), ... are communicably connected via a network 110 such as the Internet. The printer management center 130 includes a terminal apparatus (information processing apparatus) 130a such as a personal computer and a database 130b. The printer management 130 is communicably connected to a service center (maintenance service side) 140 for offering maintenance services of printers provided on the user sides 120(1), 120(2), ... via arbitrary communication means (a network 110, a telephone, a facsimile machine of the like).

Note page 2, paragraphs [0032] – [0033].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mii in view of Gilliland et al. with that of Takahashi so that a maintenance service side can manage a device efficiently as disclosed by Takahashi (note abstract).

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mii, as modified by Gilliland et al., as applied to claims 17, 18, 23, and 31 above, and further in view of Sorens et al. (6,317,848).

Mii, as modified by Gilliland et al., as discussed above, differ from the instant invention by not disclosing a control unit that, in a case where trouble occurs in the image forming apparatus, controls information thereof to be transmitted to a manufacturer through the network; and a control unit that controls diagnostics to be run on the image forming apparatus having trouble through the network.

Sorens et al. discloses a printer with a system for tracking and automatically communicating printer failures and usage profile aspects by way of emailing to a number of email addresses selected by a user. One recipient of the email is the manufacturer. Note column 2, lines 10-66.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mii in view of Gilliland et al. with that of Sorens et al. so that down time due to consumables reaching an end of life can be avoided as discussed by Sorens et al. (note column 1, lines 34-41).

#### ***Allowable Subject Matter***

Claims 1-16, 33, and 34 are allowed over the prior art of record.

Claims 19-22, 25, 30, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 17, 18, 24, and 26-29 have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 571-272-2136 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan S. Lee  
Primary Examiner  
Art Unit 2852

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